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ABSTRACT

After reviewing the literature relevant to motivation and perception of communication climate, a study of 65 supervisory-managerial personnel from two large manufacturing companies is reported. Subjects completed an intrinsic/extrinsic motivation scale and a communication-climate questionnaire. Analysis of results indicated partial support for the overall hypothesis that individuals who are intrinsically motivated would perceive the communication climate as being more ideal than would those who were extrinsically motivated. Data relevant to a series of corollary hypotheses and alternative explanations of the results are also discussed. (AA)

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The Relationship of Intrinsic-Extrinsic Motivation and Communication Climate in Organizations

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The Relationship of Intrinsic-Extrinsic Motivation and Communication Climate in Organizations

Motivation has long been a focus of study for those interested in analyzing behavior in organizational settings. ". . . 'motivation' refers to the way in which a person's needs determine his behavior." (Yukl & Wexley, 1971, p. 153). Carlson (1970) expands upon the concept of motivation in the organizational and work environment:

> Motivation has been conceived here as a specific process that energizes differentially certain responses to the work situation, thus making them dominant over other possible responses to the same situation . . . as such, the concept incorporates preferential responses of the individual employee to different characteristics and circumstances of his work (p. 6).

Recently there has been a great deal of attention paid to intrinsic and extrinsic motivation as one way of viewing the basis for the preferential responses that define rewards for individuals in organizations. Motivation is intrinsic when the rewards for performing a task come from within the individual performing the task (Deci, 1975; House, 1972; Koch, 1956) and from the activity or from the task itself (Berlyne, 1966; Deci, 1971, 1972a, 1972b, 1975; English & English, 1958; House, 1972; Hunt, 1965; White, 1959). Deci (1975) further clarifies the rewards gained from an intrinsically satisfying task when he states that ". . . the reward [of intrinsic motivation] is the feeling of competence and self-determination" (p. 101). Intrinsic motivation is consummatory (House, 1972) and creates a situation where the intrinsically motivated individual seems to "become a part of the task."

Extrinsic motivation, on the other hand, is exemplified by work that is done "in order to" accomplish some non-task goal such as to relieve guilt, please a friend, get a promotion (Koch, 1956). Extrinsic motivation refers to the performance of an activity because that activity leads to some external rewards (rewards that are provided by people other than the performer of the task) such as pay, status, friendship, approval, fringe benefits, and so forth (Deci, 1971, 1972a, 1972b, 1975; English & English, 1958; House, 1972; Koch, 1956). House (1972) provides a clear distinction between intrinsic and extrinsic motivation:

> Theoretically, we have asserted that the most crucial distinction between "intrinsic" and "extrinsic" motivation lies in whether the motivation is gratified in the process of an activity (e.g. work) or as a result of that activity; is the activity consummatory or instrumental with respect to motive. Intrinsic motivation, we contend, is gratified in the process of work; extrinsic motivation, as a result of work. In addition, the goals or rewards which are the object of intrinsic motivation are self-mediated, while the goals and rewards of extrinsic motivation are defined by others and mediated by others (p. 377).

The theoretical impetus for the concept of intrinsic motivation springs from the notion of locus of causality and competence and self-determination. Festinger (1967, cited in Deci, 1975) proposes that external rewards affect a person's concept of why he is working and lead him to believe that he is working for the external rewards, rather than for the rewards that are derived from the performance of the task. This line of reasoning was also posited by de Charms (1968) who feels that external rewards change an individual's perception about the basis of his motivation. External rewards cause a person to lose his feelings of personal causality and make him feel like a "pawn" to the rewards, which leaves him less intrinsically (and more

extrinsically) motivated. Deci (1971, 1972a, 1972b, 1975), Lepper, Green and Nisbett (1973), and Ross provide ample empirical evidence that the application of extrinsic rewards to an intrinsically motivating task decreases the intrinsically motivating nature of that task. Again, "extrinsically motivated behavior appears to be behavior done 'in order to' reach an external reward" (de Charms, 1968, p. 353), and thus the reward becomes the "cause" of that behavior. In such a situation, then, the individual is said to be like a pawn to the mediator of the reward, who, in the organizational setting, will most likely be that individual's superior.

Locus of causality, or the perceived cause of an individual's behavior is thus a key component of the difference between intrinsic and extrinsic motivation. An important aspect of locus of causality is the ability of an individual to affect changes in his own environment, or at least to perceive that he can affect those changes that he desires:

> Man's primary motivational propensity is to be effective in producing changes in his environment. Man strives to be a causal agent, to be the primary locus of causality for, or origin of, his behavior; he strives for personal causation (de Charms, 1968, p. 269).

Work in America, A Special Task Force Report to the Secretary of Health, Education and Welfare in 1973 supports de Charms' argument as well as illustrating the magnitude of importance that intrinsic motivation has for the American work force: "Basic to all work appears to be the human desire to impose order, or structure on the world (p. 7) . . . [M]ore than 100 studies in the past 20 years shows that what workers want most 'is to become masters of their immediate environments' and to feel that their work is important" (p. 13).

Work in America also pointed out that the concept of intrinsic motivation has gained importance for the current and future work force of this country:

> Today's youth are expecting a great deal of intrinsic reward from work. Yankelovich found that students rank the opportunity to "make a contribution," "job challenge," and the chance to find "self expression" at the top of the list of influences of their career choices. A 1960 survey of over 400,000 high school students was repeated for a representative sample in 1970, and the findings showed a marked shift from students valuing job security and opportunity for promotion in 1960 to "freedom to make my own decisions" and "work that seems important to me" in 1970 (p. 45).

The preceding argument, especially concerning external rewards and the perception of the basis of motivation, seemingly neglects one important fact--individuals in the American work force are paid (provided an external reward) for performing and completing their tasks. Following the previous line of reasoning and empirical evidence, then, there should be very few intrinsically motivated workers, since most are given external rewards (at least in the monetary or material form such as salaries, wages, fringe benefits, etc.) by someone else. There should, therefore, be a shift in the perceived locus of control away from workers in America and thus make them less intrinsically, and more extrinsically, motivated.* Deci (1972b) has provided both a theoretical rationale and empirical evidence for why this phenomenon does not necessarily take place. Deci utilizes a contingency explanation (i.e., is the reward dependent upon quality of performance or not) to justify a position which holds that an

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*It should be noted here that there may be conceptual difficulty involved if on the one hand it is maintained that intrinsic and extrinsic motivation are separate continua, while on the other hand it is argued that the two are inversely related (that is the more of one, the less of the other). This issue will be discussed later.

individual can be provided an extrinsic reward for a task (e.g., being paid a wage for working), yet may not necessarily have a shift in the locus of causality away from himself. That is, an individual can be paid a wage and still be intrinsically motivated. When rewards are noncontingent, the external reward is not tied directly to performance. The noncontingent nature of much of the wage structure in America allows an individual to feel that the external rewards are not the reason for his performance of the task. In an experimental study Deci (1972b) found that money did not decrease intrinsic motivation (i.e., shift the locus of causality) when it is paid noncontingently; "it is possible to pay workers and still have them intrinsically motivated" (p. 227):

> In other words, it is not the money per se which motivates performance but rather the way it is administered. To use money as an extrinsic motivator (or controller) of behavior it has to be administered contingently (p. 227).

If intrinsic and extrinsic motivation stem from very different perceptions of the basis for the performance of an activity or task then there should also be very different perceptions about the situation in which that task is embedded. There has been some theoretical support by de Charmes (1968) for the proposition that intrinsically and extrinsically motivated individuals may differ in their perceptions and behaviors:

> Whether a man considers himself to be acting as an Origin or as a Pawn is the central issue for understanding the effects of personal causation in human motivation. When a person feels that he is an Origin, his behavior should be characteristically different from his behavior when he feels like a Pawn (p. 319).

The communication climate in an organization is a very important component of that total environment in which an individual's job is situated. Dennis (1974, 1975) found that although organizational climate may be

viewed as the parent of communication climate, there is a great deal of shared variance between the two concepts and that communication climate seems to contribute substantially to organizational climate. According to Likert (1967) organizational climate is a major variable affecting performance and other organizational outcomes. Redding (1972) has defined communication climate as being composed of supportiveness; participative decision-making; trust, confidence, and credibility; openness and candor; and emphasis on high performance goals. Dennis (1974, 1975) added information adequacy, semantic-information distance, and communication satisfaction to Redding's list as possible dimensions of communication climate. In a large scale study Dennis factor analyzed items generated from Redding's conceptualization of communication as well as his own additional conceptualization and found a five-factor solution for the domains of communication climate. Dennis chose not to attach labels to the factors, on the grounds that such labels would distort the multi-faceted communication concepts imbedded in each factor's domain. According to Dennis, each factor does, however, have a thread of conceptual continuity. His five-factor solution was as follows:

Factor I (19.87% of the total variance):

Superior-subordinate communication, particularly the supportiveness and openness from a supervisor as perceived by a subordinate.

Factor II (13.90% of the total variance):

Perceived quality and accuracy of downward communication.

Factor III (5.89% of the total variance):

Supervisor's perceptions of communication relationships with subordinates, especially the affective aspects of these relationships (such as perceived openness and empathy).

Factor IV (7.20% of the total variance):

Perceived upward communication opportunities, and perceived upward-directed influence.

Factor V (4.74% of the total variance):

Perceived reliability of information from subordinates and colleagues.

Communication climate is one of the areas where there should be characteristically different behaviors or perceptions in this case between individuals who are intrinsically motivated and those who are extrinsically motivated. de Charms (1968) has declared that: "man's primary motivational propensity is to be effective in producing changes in his environment" (p. 269, emphasis in the original). Man strives to be a causal agent or primary locus of causality for (or origin of) his own behavior. de Charms labels this striving as "personal causation;" it is the key to his view of intrinsic motivation, and it may well be a critical link between intrinsic motivation and communication climate. The relationship between personal causation and intrinsic motivation is further explored by de Charms (1968):

> . . . [W]henever a person experiences himself to be the locus of causality for his own behavior (to be an Origin) he will consider himself to be intrinsically motivated. Conversely, when a person perceives the locus of causality for his behavior to be external to himself (that he is a Pawn) he will consider himself to be extrinsically motivated (p. 328).

It can be suggested from the preceding theoretical discussion that an individual who is intrinsically motivated will perceive the communication climate of an organization as more open and "ideal"* than will an individual who is extrinsically motivated. Patton (1969) hypothesized a positive correlation between each of two aspects of organizational climate--"participative" and "developmental leadership"--and intrinsic motivation in the organization. Patton's conceptualization of participative climate closely parallels Redding's (1972) proposed dimensions of Participative Decision-Making, and Dennis' (1974) Factor IV. Patton's "developmental leadership style" seems to be composed primarily of communication concepts, especially supportiveness, openness, and trust. In a questionnaire study using a total sample of 1032 organizational members on three hierarchical levels at Boeing Aircraft Corporation, Patton found a significant correlation between participative climate and intrinsic motivation ($\underline{r} = .717$, $p < .01$), a significant correlation between developmental leadership style and intrinsic motivation ($\underline{r} = .575$, $p < .01$), and a significant multiple correlation of $R = .739$ ($p < .01$).

Two methodological problems, however, should be noted concerning the results of this study. First, the "communication" aspects of the organizational climate were not explicitly identified as such by Patton. His conceptualization of the climate variables--participative and developmental leadership--were in terms of over-all organizational climate rather than in terms of communication climate (or even communication aspects of

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*An "ideal" communication climate is composed of positive responses to the five dimensions generated by Dennis (1974, 1975).

organizational climate). It is only a subjective analysis of Patton's organizational climate scales which suggests communication dimensions in a large majority of the items in Patton's two scales.

The second methodological question, and the more important of the two, relates to the scales Patton utilized to measure intrinsic and extrinsic motivation. Item construction for the scales was based upon Herzberg's Hygiene and Motivator factors (Herzberg, 1968; Herzberg, Mausner, and Snyderman, 1959). Herzberg's two factor theory of motivation has been adequately criticized by Dunnette, Campbell, and Hakel (1967) and Hinrichs and Mirschking (1967); therefore, his theory will not be discussed here since it is not directly relevant to this study. What is important is that Patton defined intrinsic and extrinsic motivation in terms of Herzberg's Motivator and Hygiene factors, respectively. The problem with this definition is that Herzberg's Motivator factor includes dimensions such as approval, status, friendship, esteem, etc., which, as previous theorizing about intrinsic-extrinsic motivation indicates, lie more properly within the domain of extrinsic rather than intrinsic motivation. Thus, Patton's findings regarding the relationship between intrinsic motivation and organizational climate, and especially communication climate, must be viewed with these methodlogical considerations in mind.

Patton's findings, even granting the theoretical and methodological problems, do provide some indication that there may be a positive relationship between intrinsic motivation and "ideal" communication climate in the organization.

Given the previous theoretical discussion and research findings, the following chain of reasoning is proposed: (1) an intrinsically motivated

worker derives his rewards from himself and from the performance of the task. (2) He should also feel that he is more in control of his own environment, that he is his own locus of causality. (3) Therefore, he should perceive the communication climate as being closer to the ideal one--that is more supportive, more trusting, more open and encouraging more participation.

An extrinsically motivated worker, on the other hand, is given his rewards by others; therefore, he is in less control of his environment. Since he is not in control of his environment, the extrinsically motivated worker should perceive that environment as being one that does not allow him to be his own locus of causality. Indeed, the environment is one that controls him, since it is from the environment that he obtains his rewards. Thus, the extrinsically motivated worker should perceive the communication climate as not supportive, not trusting, not open, and not encouraging participation.*

Since intrinsic and extrinsic motivation are predicted to produce differential perceptions of the communication in an organization, the following hypothesis was generated:

> Intrinsically motivated subordinates will perceive the communication climate to be more "ideal" (open, participative, satisfying, etc.) than will extrinsically motivated subordinates.

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*It should be noted that the intrinsically and extrinsically motivated individuals might perceive the same descriptive characteristics of a given communication climate, but differ on their preferences or value judgments of that same climate. The present study deals only with perceptions and not preferences.

Corollary hypotheses:

a: Intrinsically motivated subordinates will perceive the communication climate to be more supportive than will extrinsically motivated subordinates;

b: Intrinsically motivated subordinates will perceive downward communication directed to themselves as being more accurate than will extrinsically motivated subordinates;

c: Intrinsically motivated individuals will perceive communication with their subordinates and peers more favorably than will extrinsically motivated individuals;

d: Intrinsically motivated subordinates will perceive that upward communication with their superiors is more satisfying than will extrinsically motivated subordinates;

e: Intrinsically motivated subordinates will perceive incoming information from peers and subordinates to be more reliable than will extrinsically motivated subordinates.

The analysis of the relationship of intrinsic-extrinsic motivation and communication climate was in this study from the focus of intrinsic or extrinsic motivation influencing an individual's perceptions of the communication climate. However, the possibility of a reciprocal or circumplicial relationship should be kept in mind during this analysis; i.e., communication climate can also be instrumental in affecting an individual's intrinsic or extrinsic motivation. Behaviors in organizations should be viewed from a dynamic process or circular (or circumplicial) perspective. It is possible, though, to "break the circle" at any point, and view the relationships among behaviors from that perspective. This does not imply

any simple causality, but only attempts to facilitate the comprehensibility and analysis of these relationships. Thus, the primary "view" in this study was that of the effects of the motivational nature of the individual organization member on perception of communication climate. Yet, it should be noted that the other "view" is as valid.

Method

Subjects.

The data for this study were collected in the corporate headquarters of two large manufacturing companies. In compliance with the promise of anonymity, they will not be named. Supervisory-managerial personnel from the same hierarchical level in both companies participated in the study. Subjects at Company 1 (n = 27) were all available supervisory personnel (at the appropriate hierarchical level) from one particular division at the Corporate Headquarters. Subjects at Company 2 (n = 38) were all available supervisory personnel (at the appropriate level) across several divisions at the Corporate Headquarters. This was a nonrandom sample since a number of supervisory personnel could not participate due to production demands in the Company during data collection for this study; all appropriate personnel who did not have conflicting schedules participated.

Intrinsic Motivation.

Each participant in the study completed an Intrinsic-Extrinsic Motivation Scale. The purpose of this instrument was to determine the nature of the motivation of each subordinate; i.e., the degree of intrinsic and

extrinsic motivation each expressed, based on self report. The final form of this instrument was adapted from House (1972). This adaptation mainly took the form of some major wording changes, and the deletion of three items. The items used came from two dimensions as factor analyzed by House: Intrinsic Motivation and Extrinsic Achievement. However, an analysis of participants' responses on these two dimensions of the Intrinsic-Extrinsic Motivation Scale yielded a positive, but nonsignificant correlation ($r = .13$, $p = .13$). Thus, it seems that subjects in this study did not perceive intrinsic and extrinsic motivation as falling along one continuum, but rather along two separate continua. Therefore, for the independent variable in this study four motivation groups were created as follows: (1) high intrinsic motivation--high extrinsic motivation; (2) high intrinsic motivation--low extrinsic motivation; (3) low intrinsic motivation--high extrinsic motivation; (4) low intrinsic motivation--low extrinsic motivation. Because there was some difference between the mean responses on intrinsic and extrinsic motivation for the two Companies (though these differences were not statistically significant), the medians within each Company were utilized to create the four motivation groups. That is, each participant was assigned to one of the four motivation groups depending upon whether his score was above or below the median using the intrinsic and extrinsic motivation data for his Company only.

Communication Climate.

After completing the Intrinsic-Extrinsic Motivation Scale, the participants filled out the Communication Climate Questionnaire. This final form of this instrument, which was used to determine the participants' perceptions

of the communication climate in their respective organization, was adapted from Dennis (1974). The separate dimensions of the scale as factor analyzed by Dennis were used as the dependent measures for each of the appropriate corollary hypotheses: supportiveness (corollary hypothesis a); downward communication accuracy (corollary hypothesis b); downward and lateral communication satisfaction (corollary hypothesis c); upward communication influence and satisfaction (corollary hypothesis d); and information reliability (corollary hypothesis e). In addition the scores on the five dimensions were summed for each individual to yield a measure of total communication climate which was utilized as the dependent measure for the overall hypothesis.

Results.

The overall hypothesis stated that individuals who are intrinsically motivated would perceive the communication climate as being more "ideal" than would those who are extrinsically motivated. Partial support was provided for this hypothesis. Though there was a significant F-ratio obtained for the data, Newman-Keuls tests revealed only one of six possible pairs of means that was statistically different. Tables 1 - 3 present the results for the overall hypothesis.

TABLE 1

Means of Perception of Total Communication Climate for Motivation Groups[a]

Low extrinsic-high intrinsic	High extrinsic-high intrinsic	High extrinsic-low intrinsic	Low extrinsic-low intrinsic
177.29 (d)	170.05 (c)	160.00 (b)	154.41 (a)

[a]Scores ranged from 110-217, out of a total possible range of 45-225. The higher the score, the more "ideal" (open, participative, satisfying, etc.) the communication climate was perceived.

TABLE 2

One-way ANOVA for Perception of Total Communication by Motivation Groups

Source	MS	df	F-ratio	p
Total	629.410	64		
Between motivation groups	1620.733	3	2.79	.04*
Error	580.654	61		

*$p < .05$

TABLE 3

Results of Newman-Keuls Sequential Range Tests for Means in Table 3.18

	b	c	d
a			*
b			
c			

*$p < .05$

Corollary hypothesis a stated that intrinsically motivated subordinates would perceive the communication climate to be more open and supportive than would extrinsically motivated subordinates. Hypothesis 5a was <u>not</u> supported by the data ($F = 2.085$, $df = 3/61$, $p = .11$).

Corollary hypothesis b stated that intrinsically motivated subordinates would perceive more accuracy in downward communication than would extrinsically motivated subordinates. Partial support was provided for hypothesis b. Though there was a significant F-ratio obtained for the total array of data, Newman-Keuls tests revealed only one of six possible pairs of means that was statistically different. Tables 4 - 6 present the results for corollary hypothesis b.

TABLE 4

Means of Perception of Accuracy of Downward Communication for Motivation Groups[a]

Low extrinsic-high intrinsic	High extrinsic-high intrinsic	High extrinsic-low intrinsic	Low extrinsic-low intrinsic
42.21 (d)	39.62 (c)	38.07 (b)	33.12 (a)

[a]Scores ranged from 12-56 of a total possible range of 12-60. The higher the score the greater the perception of the effectiveness of downward communication.

TABLE 5

One-way ANOVA for Perception of Accuracy of Downward Communication by Motivation Groups

Source	MS	df	F-ratio	p
Total	90.010	64		
Between groups	235.714	3	2.84	.04*
Error	82.852	61		

*$p < .05$

TABLE 6

Results of Newman-Keuls Sequential Range Tests on Means in Table 3.21

	b	c	d
a			*
b			
c			

*p < .05

Corollary hypothesis c stated that intrinsically motivated subordinates would perceive communication with peers and subordinates more favorably than would extrinsically motivated subordinates. This hypothesis was not supported ($F = 2.701$, $df = 3/61$, $p = .06$).

Corollary hypothesis d stated that intrinsically motivated subordinates would perceive upward communication as more satisfying than would extrinsically motivated subordinates. This hypothesis was not supported ($F = 1.978$, $df = 3/61$, $p = .13$).

Corollary hypothesis e stated that intrinsically motivated subordinates would perceive incoming information to be more reliable than would extrinsically motivated subordinates. This hypothesis was not supported ($F < 1.00$, $df = 3/61$, $p = .88$).

Discussion

The results of the motivation-communication climate analyses are, at best, barely supportive of the hypothesized relationships between these two

variables. The overall hypothesis was supported and while only two of the group means differed, these two can be considered central to the hypothesized relationship. The two group means which differed can be considered as the pure intrinsic motivation group (high intrinsic motivation--low extrinsic motivation) which did perceive the overall communication climate as more "ideal" than did the pure extrinsic motivation group (low intrinsic motivation--high extrinsic motivation).

The same analysis can be made for corollary hypothesis b as was made for the overall hypothesis. The pure intrinsic motivation group did view the communication climate as having more downward accuracy than did the pure extrinsic motivation group. While there were no other significant findings, the results for corollary hypothesis c was marginally significant ($F = 2.701$, $df = 3/61$, $p = .06$). Again, the pattern of motivation groups was the same as with the overall hypothesis and corollary hypothesis c. Both corollary hypotheses a and d followed the same pattern, though their levels of significance were, at best, barely marginal ($F = 2.085$, $df = 3/61$, $p = .11$ for corollary hypothesis b; and $F = 1.978$, $df = 3/61$, $p = .13$ for corollary hypothesis d).

There does seem to be some support for the hypothesized relationship between intrinsic-extrinsic motivation and communication climate. This support is, however, not overwhelming. There are a number of possible explanations for this lack of clear support for the overall hypothesis and its corollaries. Five possible explanations, however, seem most plausible:

(1) There may, in fact, be no relationship between the two variables studies. This explanation would imply that how an individual in

an organization perceives the communication climate of that organization is not related to the nature of his motivation to work. In other words, whether an individual is intrinsically or extrinsically motivated does not have much influence on how that individual perceives the communication climate. Thus, the theoretical argument that the intrinsically motivated individual would perceive the climate to be more open, supportive, etc., would be erroneous.

(2) It may be that intrinsically motivated and extrinsically motivated individuals responded to the communication climate questionnaires from entirely different perspectives, thus "washing out" any results that might emerge. It may be that intrinsically motivated individuals are more willing to "sound off" about things that are bothering them. If, as hypothesized, these individuals obtain their rewards from the tasks they are performing in the organization, anything preventing them from obtaining those rewards, may be subject to criticism by them. Thus, an intrinsically motivated individual's responses to the communication climate may not be: "I find this place to be closed, untrusting, etc.," but rather "I get my rewards from the tasks I perform; therefore, I want more openness, more information about the tasks I am performing, more support for what I am doing." On the other hand, the extrinsically motivated worker may be creating artifactual data. It does not seem implausible to think that extrinsic motivation is related

to both evaluation apprehension and emend characteristics. Even though the participants were assured that their responses would be confidential, the respondents may have felt that someone would judge their answers. If, as hypothesized, an extrinsically motivated individual obtains his rewards from others, he may want to answer the questionnaire in a manner that puts himself in the best light to the researcher (and possibly to his boss) and in a way that will please the researcher (and his boss). This explanation would not be inconsistent with the theoretical foundations of the hypotheses dealing with the motivation, communication climate relationship.

(3) It may be that the intrinsically motivated individual does not really care what the communication climate is like in the organization, as long as he is able to do his job and thus obtain his rewards from working in the organization. Therefore, it really does not matter to him what the communication climate is like, if it does not affect his ability to do his job. This explanation would seem to challenge the theoretical bases for the hypotheses.

(4) The fourth explanation included here is methodological, rather than theoretical. The sample size may have been too small to reveal true differences between intrinsically and extrinsically motivated individuals concerning their perceptions of the communication climate. Since there were some indications, though not strong ones, to support two of the hypotheses, a larger sample size may have revealed that differences do exist between perceptions

of communication climate by intrinsically and extrinsically motivated individuals. Also, the variability (in terms of range and variance) was quite large for the communication climate data. Thus, any differences which might have existed among the different types of motivation would not emerge so easily with the small sample size given the sizable error terms.

(5) The "mixed" motivation groups may have added extraneous variance to the results for the pure motivation groups. The results for the "pure" motivation groups were supportive of the hypothesized relationships. Thus, without the extraneous variance due to the mixed motivation groups the results may have been more conclusive.

The results do seem to indicate that individuals who are intrinsically motivated perceive their organizational environment (the communication climate in this case) differently from the way extrinsically motivated individuals do, though without a great deal of confidence. The relationship between intrinsic-extrinsic motivation and communication climate needs to be clarified. Also, other "characteristically different" behavioral and perceptual differences between intrinsically and extrinsically motivated individuals such as productivity, absenteeism, turnover, supervisory and leadership style, resistance to change, and job satisfaction need to be explicated. Only after such exploration can the effects of an individual's intrinsic-extrinsic motivation on the functioning of an organization be fully understood.

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